

## THAT WHICH IS CLAIMED IS:

*[Signature]*

1. An olefin trimerization system comprising, in combination:
  - a) a reactor,
  - b) at least one inlet line into said reactor for olefin reactant and catalyst system,
  - c) effluent lines from said reactor for trimerization reaction products, and
  - d) at least one separator to separate desired trimerization reaction products;

wherein said catalyst system comprises a chromium source, a pyrrole-containing compound and a metal alkyl.

2. A trimerization system in accordance with claim 1 further comprising one or more filters.

3. A trimerization system in accordance with claim 1 further comprising a catalyst system deactivate inlet line following the reactor.

4. A trimerization system in accordance with claim 1 further comprising a reactor inlet line for olefin feed from a second source.

5. A trimerization system in accordance with claim 1 further comprising a separator inlet line for a stream of heavies to be separated.

6. A trimerization system in accordance with claim 1 further comprising a reactor inlet line for trimerization reaction solvent.

~~7. A trimerization system in accordance with claim 1 wherein said olefin feed comprises olefins compounds having from about 2 to about 30 carbon atoms per molecule.~~

~~8. A trimerization system in accordance with claim 7 wherein said olefin feed compound is ethylene.~~

~~9. A trimerization system in accordance with claim 1 wherein said desired trimerization reaction products comprise olefin compounds having from about 6 to about 100 carbon atoms per molecule.~~

10. A trimerization system in accordance with claim 9 wherein said desired trimerization reaction products comprise hexenes.

11. A trimerization system in accordance with claim 10 wherein said desired trimerization reaction products comprises 1-hexene.

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